

Notice of Allowability

Application No.

09/873,080

Examiner

Jay P. Patel

Applicant(s)

SHAFFER ET AL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/15/2005.
2. ☒ The allowed claim(s) is/are 1-5 and 8-25.
3. ☒ The drawings filed on 6/01/2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-5 and 8-25 are allowed.
2. The following is an examiner's statement of reasons for allowance:

In regards to claim 1 and 20, the cited prior art fails to particularly disclose either individually or in combination **receiving at the first router a measurement of the amount of jitter associated with the first media stream at a second router; and prioritizing timing of a transmission of a packet of the first media stream from the first router toward the second router based at least in part on results of the comparing step and at least in part on the amount of jitter associated with the first media stream at the second router.** It is noted that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop by hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower priorities are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

In regards to claim 9, the cited prior art fails to particularly disclose either individually or in combination **receiving a measurement of an amount of jitter**

associated with a media stream at least the third router; and prioritizing timing of a transmission of a packet in the media stream from at least the first router toward at least the third router via the second router based at least in part on the amount of jitter associated with the media stream at the third router. It is noted

that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop-by-hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower prorates are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

In regards to claim 15, the cited prior art fails to particularly disclose either individually or in combination **receiving at the first router a measurement of the amount of jitter associated with the first media stream at a third router and prioritizing timing of a transmission of a voice packet in the first media stream from the first router via a second router toward the third router based at least in part on results of the comparing step the amount of jitter of the first media stream to the amount of jitter of at least one other media stream and at least in part on the amount of jitter associated with the first media stream at the third router.** It is noted that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop by

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hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower prorates are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

In regards to claims 20 and 21 the cited prior art fails to particularly disclose either individually or in combination means for **receiving at the first router a measurement of the amount of jitter associated with the first media stream at a second router; and prioritizing timing of a transmission of a packet in the first media stream from the first router toward the second router based at least in part on results of the comparing step and at least in part on the amount of jitter associated with the first media stream at the second router.** It is noted that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop by hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower prorates are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and

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column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

In regards to claims 22 and 23, the cited prior art fails to particularly disclose either individually or in combination, receiving a measurement of an amount of jitter associated with a media stream at the third router; and prioritizing timing of a transmission of a packet in the media stream from the first router via the second router toward the third router based at least in part on the amount of jitter associated with the media stream measured at the third router. It is noted that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop by hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower prorates are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

In regards to claim 24, the cited prior art fails to particularly disclose either individually or in combination, associating, at a central server, the first measurement with the second measurement as jitter of the media stream at the first router and the second router, respectively; and establishing a priority of transmission of a packet of the media stream from the first router toward the second router at the

central server, using the first measurement with the second measurement. It is noted that the closest prior art Fitzgerald (US Patent 6466548 B1) discloses a hop by hop quality of service measurement system where variable routes are calculated between two routes and routers with loop back interfaces are identified and loopback delays are calculated (see figures 3 and figure 4). In addition, Li et al. (US Patent 6560230 B1) discloses a packet scheduling methods and apparatus where a scheduling engine assigns higher priorities to classes of packets that require small transmission delays and lower prorates are assigned to classes that can tolerate large delays (see figures 5, 6 and 6A and column 12 lines 44-59). However, the cited prior art fails to particularly disclose or render obvious the above-mentioned underlined limitations.

Conclusion

3. References not relied upon in this office action but considered pertinent to the art are as follows:

- a. US Patent 6377551 B1: Luo et al. : QOS based route determination method for communications networks.
- b. US Patent 6301244 B1: Huang et al.: QOS-oriented one-to-all route selection method for communication networks.
- c. US Patent 6707821 B1: Shaffer et al: Time-sensitive-packet jitter and latency minimization on a shared data link.
- d. US Patent 5966387: Cloutler, Leo: Apparatus and Method for correcting jitter in data packets.

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- e. US Patent 5996018: Duault, et. al : Method and apparatus to reduce jitter and end-to-end delay for multimedia data signaling.
- f. US Patent 6259677 B1: Jain, Jaswant R.: Clock synchronization and dynamic jitter management for voice over IP and Real-time data.
- g. US Patent 6452950 B1: Ohlsson et al. : Adaptive jitter buffering.
- h. US Patent 6535567 B1: Girardeau, James Ward: Method and Apparatus for suppression of jitter in data transmission systems.
- i. US Patent 6640193 B2: Kuyel, Turker: Method and System for measuring jitter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jpp 6/30/05
Jay P. Patel
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Art Unit 2666

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